

REMARKS/ARGUMENTS

In the Office Action mailed October 20, 2004, claims 1-26 were rejected. Applicants have thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action. All the pending claims at issue are believed to be patentable over the cited references.

In the current response to the outstanding Office Action, claims 1, 9, 10, 12 and 15 were amended. Claims 21-26 were cancelled. Claims 27-33 were added are supported by the as-filed application. No new matter is added. As such, claims 1-20 and 27-33 remain pending.

CLAIM AMENDMENTS

Applicants have amended each of the independent claims 1, 9, 10, 12 and 15 to explicitly state that which was inherently present in the as-filed claims. As such, the claims have not been narrowed.

CLAIM REJECTIONS – 35 U.S.C. § 102(b)

The Examiner rejected claims 1-26 under 35 U.S.C. §102(b) as being unpatentable over United States Patent No. 6,437,692 to Petite *et al.* (hereinafter referred to as "Petite"). In light of the following remarks, Applicants respectfully submit that these claims are allowable.

Initially, Applicants note that it is axiomatic that to qualify as an anticipation under Section 102, the cited reference must "bear within its four corners adequate directions for the practice of the patent invalidated." (See, for example, Dewey & Almay Chemical Co. v. Mimex

Co., Inc., 52 U.S.P.Q. 138 (2nd Cir. 1942)). Applicants respectfully submit that Petite embodies no such directions.

More particularly, each of the independent claims, as filed and currently pending, state in some form and manner that the present invention monitors the equipment and in response to receiving an operating value outside of a specified range, the present invention actuates a backup system to ensure that the operating value is brought back into the range.

The advantage of this particular aspect of the current invention is that it provides an additional means of backup for a piece of equipment, especially in an environment where it is crucial. For example, the present invention could be detachably coupled to an incubator in which is contained experiments developed over many years. An undetected malfunction of the incubator could have an adverse effect on the specimens contained in the incubator. The ongoing operation of the incubator is critical to the overall project.

Many of the incubators on the market contain alarm systems such as audio and visual alarms indicating a malfunction or a potential malfunction. However, if these alarms are not delivered to the appropriate person within a certain amount of time, it is likely that the specimens inside the incubator would be destroyed.

The present invention overcomes this inherent limitation by adding an additional layer of security to the incubator. The present invention, a node, is not integral to the incubator, but in fact, detachably attached externally to the equipment. It is linked to sensor within the incubator to monitor specific environmental conditions such as gas levels as well as to a backup system. As the conditions are tracked, they are analyzed at the node. Upon conducting analysis, the node, among other things, determines whether the incubator is operating within the parameters

specified. If it is not, the node attempts to take corrective action to ensure the ongoing functionality of the incubator.

For illustrative purposes, the following example is provided. While an incubator is in operation, the CO₂ level in the incubator could become dangerously low. If it does, with the present invention, the node, which is attached to the backup system, takes corrective action and begins to allow CO₂, through supply tanks attached to incubator, to be injected. Once the appropriate levels are reached, the node ceases to inject the CO₂.

Looking to independent claim 1, this above discussed aspect of the invention is found in the node element portion of the claim. The node in claim 1 states:

a node configured to receive signals from the first sensor, wherein in response to the environmental condition falling outside a range between a first value and a second value, *the node is further configured to control a backup system to substantially return the environmental condition to between the first value the second value*, wherein the node is detachably coupled to the equipment.

(Emphasis added).

Referring to independent claim 9, the above discussed aspect is found in the means for modulating element. The means for modulating in claim 8 states:

means for modulating a backup system attached to the equipment *in response to the calculated value being outside the first value and the second value*.

(Emphasis added).

Referring to independent claim 15, the above discussed aspect is found in the modulating step of the claim. The modulating step in claim 15 states:

modulating a backup system attached to the equipment *in response to the calculated value being outside the first value and the second value at the node.*
(Emphasis added).

Therefore, in essence, each of the above independent claims describes a locally controlled device, a detachably coupled node, that is capable of controlling a backup system to a piece of equipment. The node monitors and analyzes data received from the sensor to which it is linked. Upon determining a malfunction in the equipment's operability from the sensor data, the node is configured to actuate the backup system to correct the equipment's performance.

The Office Action provided by the Examiner states that the Petite discloses "node to receive signals from the sensor, wherein response to the environmental condition falling outside a range between a first value and a second value, the node controls a backup system to substantially return the environmental condition to between the first and second value." To support the rejection, the Office Action cites element number 1010 in Figure 10 of Petite.

In discussing this reference, Applicants initially note that Petite discloses that installing a local network of hard-wired sensors and actuators along with a local controller is expensive undertaking. *Column 2, lines 15-27.* In view of this expense, Petite describe his invention as a system having one or more sensors to be read and/or actuators to be controlled remotely, ultimately through a computer on the Internet. Column 2, lines 54-65.

Petite, therefore, is teaching away from using local controllers and more or less centralizing the control and monitoring functions. This is supported by Figure 10, which was cited by the Examiner. Figure 10 discloses using a central server 530 server to process and monitor data as well as provide control functions to (1) Irrigation System 810; (2) the Remote Utility Meter 610; (3) the Automated Parking Facility 910 as well as three other systems 1020,

1030 and 1040. *See column 14, lines 51-67.* Therefore, data from essentially six completely different systems are transmitted to the same centrally located server in order to monitor and control functions.

This is contrary to the current invention, which claims detachably coupling a node to the equipment in its immediate proximity such that the node is able to control a backup system to the equipment upon the determination of a range falling outside a particular value. The node, therefore, contains monitoring and control abilities at the local level rather than at a remote location.

Referring to the Office Action, Figure 10 does not disclose wherein in response to the environmental condition falling outside a range between a first value and a second value, the node is further configured to control a backup system to substantially return the environmental condition to between the first value the second value. In fact, the descriptions of the supposed control abilities of Petite are vague as best. It is unclear if Petite is controlling specific functions of the equipment or the backup system as is currently claimed in each of the pending independent claims.

At the very least, Petite does not disclose a locally node that is detachably attached to a piece of equipment in order to monitor to specific operating parameters. In fact, Petite teaches away from using a locally controlled system and teaches using a remote system of monitoring and controlling.

In light of the foregoing arguments, withdrawal of the rejection of claims 1-26 under 35 U.S.C. § 102(b) as being anticipated by Petite is respectfully requested as the reference does not disclose all the elements.

CONCLUSION

In view of the foregoing remarks, Applicants respectfully request that all the pending objections and rejections to the pending application be removed. If, for any reason, the Examiner disagrees, please call the undersigned attorney at 202-861-1703 in an effort to resolve any matter still outstanding before issuing another action. The undersigned attorney is confident that any issue, which might remain, can readily be worked out by telephone.

In the event this paper is not time filed, Applicants petition for an appropriate extension of time. Please charge any fee deficiencies or credit any overpayments to Deposit Account No. 50-2036 with reference to Attorney Docket No. 87334.5940.

Respectfully submitted,

BAKER & HOSTETLER LLP



Dennis P. Cawley
Reg. No. 44,598

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Washington Square, Suite 1100
1050 Connecticut Avenue, N.W.
Washington, D.C. 20036-5304
Telephone: 202-861-1500
Facsimile: 202-861-1783